**SPEC® OMPG2012 Result**

Colfax International  
(Test Sponsor: Indiana University)  
Intel Xeon Phi 7210, 1.30GHz,  
SMT on, Turbo off, flat DRAM+MCDRAM  

SPECompG_peak2012 = Not Run  
SPECompG_base2012 = 4.27  

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**Hardware**

<table>
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<tr>
<th>Parameter</th>
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<tr>
<td>CPU Name:</td>
<td>Intel Xeon Phi 7210</td>
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</table>
| CPU Characteristics: | Intel Turbo Boost Technology off,  
Simultaneous Multithreading (SMT) on |
| CPU MHz: | 1300 |
| CPU MHz Maximum: | 1500 |
| FPU: | Integrated |
| CPU(s) enabled: | 64 cores, 1 chip, 64 cores/chip, 4 threads/core |
| CPU(s) orderable: | 1 chip |
| Primary Cache: | 32 KB I + 32 KB D on chip per core |
| Secondary Cache: | 1 MB I+D on chip per two cores |
| L3 Cache: | None |
| Other Cache: | None |
| Memory: | 96 GB (6 x 16 GB 2Rx8 PC4-2400T-REB-11, ECC) |
| Disk Subsystem: | Intel S3510 SSD 800GB, SATA3 |
| Other Hardware: | None |
| Base Threads Run: | 64 |

**Software**

| Operating System: | CentOS Linux release 7.2.1511 |
| Compiler: | C/C++/Fortran: Version 16.0.3.210 of Intel Composer XE 2016 for Linux Build 20160415 |
| Auto Parallel: | No |
| File System: | ext4 |
| System State: | Runlevel 3 (multi-user with networking) |
| Base Pointers: | 64-bit |
| Peak Pointers: | Not Applicable |
| Other Software: | None |

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### SPEC OMPG2012 Result

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(Test Sponsor: Indiana University)

Intel Xeon Phi 7210, 1.30GHz, SMT on, Turbo off, flat DRAM+MCDRAM

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Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

### Platform Notes

Sysinfo program /home/lijunj/SPEC/omp2012-1.1-run/Docs/sysinfo  
Revision 563 of 2016-06-10 (097295389cf6073d8c3b03fa376740a5)  
running on knl1.uits.indiana.edu Wed Aug 31 00:49:49 2016

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:  
http://www.spec.org/omp2012/Docs/config.html#sysinfo

From /proc/cpuinfo  
model name : Intel(R) Xeon Phi(TM) CPU 7210 @ 1.30GHz  
1 "physical id"s (chips)  
256 "processors"

cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)

cpu cores : 64  
siblings : 256  
physical 0: cores 0 1 2 3 6 7 10 11 12 13 14 15 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 56 57 58 59 60 61 62 63 64 65 68 69 70 71 72 73  
cache size : 1024 KB

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SPECompG_base2012 = 4.27

OMP2012 license: 3440A
Test sponsor: Indiana University
Tested by: Indiana University

Platform Notes (Continued)

From /proc/meminfo
MemTotal: 115193108 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

From /etc/*release*/, /etc/*version*
centos-release: CentOS Linux release 7.2.1511 (Core)
centos-release-upstream: Derived from Red Hat Enterprise Linux 7.2 (Source)

os-release:
NAME="CentOS Linux"
VERSION="7 (Core)"
ID="centos"
ID_LIKE="rhel fedora"
VERSION_ID="7"
PRETTY_NAME="CentOS Linux 7 (Core)"
ANSI_COLOR="0;31"
CPE_NAME="cpe:/o:centos:centos:7"
redhat-release: CentOS Linux release 7.2.1511 (Core)
system-release: CentOS Linux release 7.2.1511 (Core)
system-release-cpe: cpe:/o:centos:centos:7

uname -a:
Linux knl1.uits.indiana.edu 3.10.0-327.13.1.el7.xpps1_1.3.3.151.x86_64 #1 SMP
Fri Jun 10 15:04:35 UTC 2016 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Aug 3 01:08

SPEC is set to: /home/lijunj/SPEC/omp2012-1.1-run

Filesystem Type Size Used Avail Use% Mounted on
/dev/sda3 ext4 713G 45G 632G 7% /

Cannot run dmidecode; consider saying 'chmod +s /usr/sbin/dmidecode'

(End of data from sysinfo program)

General Notes

Environment:
KMP_AFFINITY=scatter

BIOS settings:
Intel Simultaneous Multithreading (SMT): on
Intel Turbo Boost Technology (Turbo): off
Cluster Mode: quadrant
Memory Mode: flat
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Test date: Aug-2016
Hardware Availability: Aug-2016
Software Availability: Apr-2016

Base Compiler Invocation

C benchmarks:
  icc
C++ benchmarks:
  icpc
Fortran benchmarks:
  ifort

Base Portability Flags

350.md: -free
357.bt331: -mcmodeled=medium
363.swim: -mcmodeled=medium
367.imagick: -std=c99

Base Optimization Flags

C benchmarks:
  -O3 -ansi-alias -no-prec-div -qopenmp -ipo -xMIC-AVX512
  -fp-model fast=2
C++ benchmarks:
  -O3 -ansi-alias -no-prec-div -qopenmp -ipo -xMIC-AVX512
  -fp-model fast=2
Fortran benchmarks:
  -O3 -no-prec-div -qopenmp -ipo -xMIC-AVX512 -fp-model fast=2

The flags files that were used to format this result can be browsed at
http://www.spec.org/omp2012/flags/Intel-ic16.0-linux64.html
http://www.spec.org/omp2012/flags/knl.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/omp2012/flags/Intel-ic16.0-linux64.xml
http://www.spec.org/omp2012/flags/knl.xml
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- **Test sponsor:** Indiana University  
- **Tested by:** Indiana University  
- **Test date:** Aug-2016  
- **Hardware Availability:** Aug-2016  
- **Software Availability:** Apr-2016

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For questions about this result, please contact the tester.  
For other inquiries, please contact webmaster@spec.org.

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